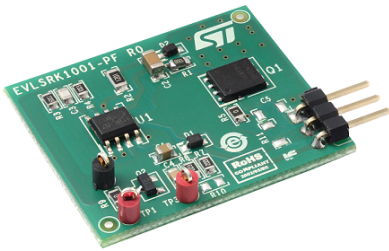


## SRK1001 adaptive synchronous rectification controller for flyback converter demonstration board with SR MOSFET



### Features

- Synchronous rectifier for flyback converter, with fixed turn-on and adaptive turn-off
- $V_{CC}$  range: 3.5 V to 32 V
- DVS sensing voltage: 185V AMR
- Max frequency: 500 kHz
- Internal gate drive for N-channel MOSFET
- SR MOSFET type: BSC110N15NS5 standard level (150 V – 11 m $\Omega$ ) PowerFLAT 5 x 6

### Description

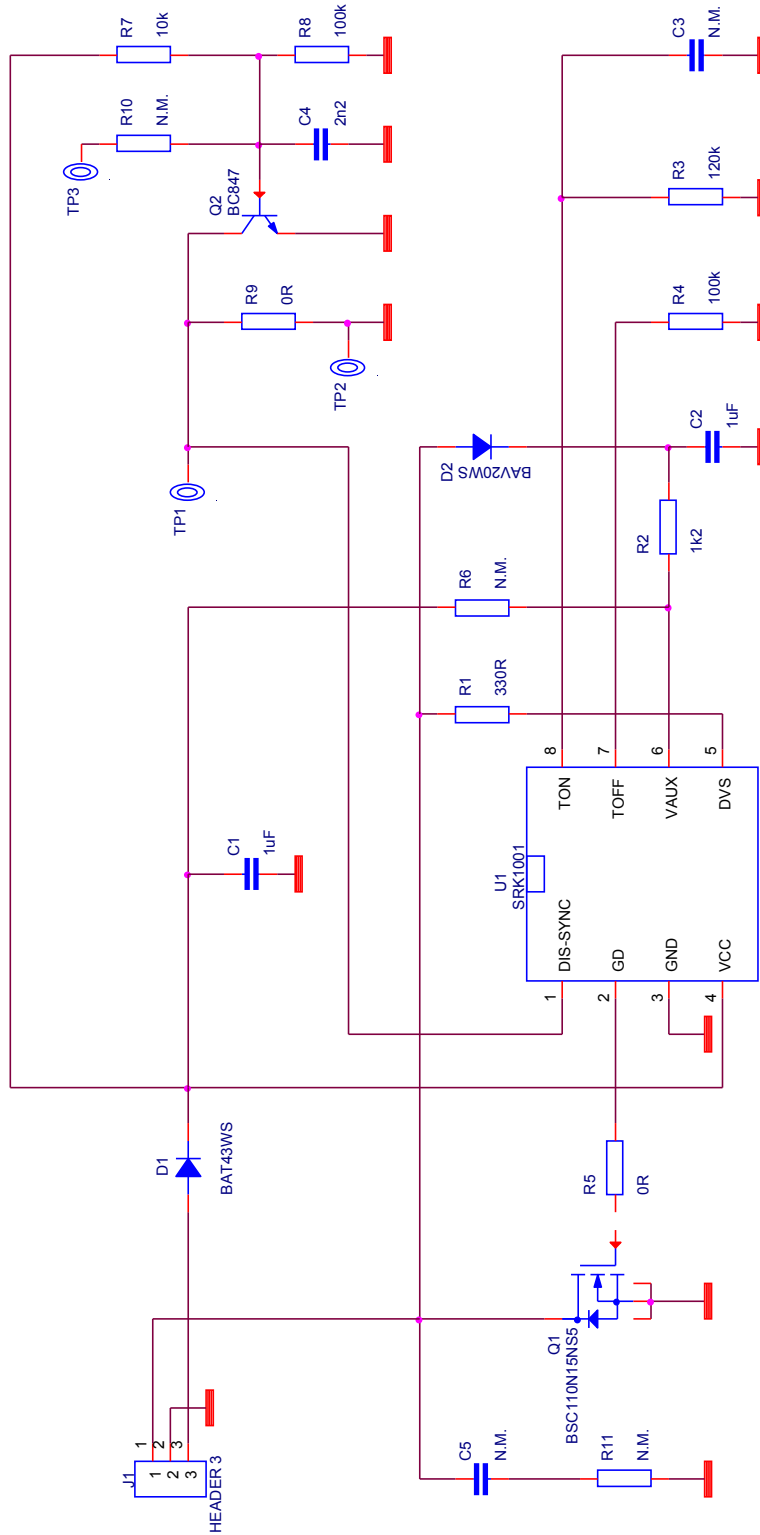
The [EVLSRK1001-PF](#) is a demonstration board, designed for evaluation of the SRK1001 synchronous rectification controller. The SRK1001 implements a control scheme specific for secondary-side synchronous rectification in flyback converters and provides high-current gate-drive outputs for driving N-channel Power MOSFET. The device can operate both in quasi-resonant (QR) applications and in fixed frequency (FF) mixed DCM-CCM applications. The board is provided with a setting suitable for QR application. To use in FF applications, a 100pF capacitor needs to be added in C3. A 120 k $\Omega$  resistor (R3) is provided on the TON pin that fixes the blanking after the turn-on to about 1.44  $\mu$ s. The blanking time after turn-off is set to 3  $\mu$ s through a 100 k $\Omega$  resistor (R4) on TOFF pin. In order to use the DIS/SYNC pin functionality, the user has to remove the zero ohm resistor R9: the PCB already provides a NPN transistor connected to this pin for remote ON/OFF. The board includes the SR MOSFET (PowFLAT 5 x 6 package) and can be easily implemented into an existing converter to substitute rectifier diodes.

Product status link

[EVLSRK1001-PF](#)

1 Electrical schematic

Figure 1. Electrical schematic



## Revision history

**Table 1. Document revision history**

Date	Version	Changes
07-May-2019	1	Initial release.
30-Oct-2019	2	Minor change to Description

**IMPORTANT NOTICE – PLEASE READ CAREFULLY**

STMicroelectronics NV and its subsidiaries (“ST”) reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST’s terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers’ products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. For additional information about ST trademarks, please refer to [www.st.com/trademarks](http://www.st.com/trademarks). All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2019 STMicroelectronics – All rights reserved

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for* [Power Management IC Development Tools](#) *category:*

*Click to view products by* [STMicroelectronics](#) *manufacturer:*

Other Similar products are found below :

[EVAL-ADM1168LQEBZ](#) [EVB-EP5348UI](#) [MIC23451-AAAYFL EV](#) [MIC5281YMME EV](#) [DA9063-EVAL](#) [ADP122-3.3-EVALZ](#) [ADP130-0.8-EVALZ](#) [ADP130-1.2-EVALZ](#) [ADP130-1.5-EVALZ](#) [ADP130-1.8-EVALZ](#) [ADP1714-3.3-EVALZ](#) [ADP1715-3.3-EVALZ](#) [ADP1716-2.5-EVALZ](#) [ADP1740-1.5-EVALZ](#) [ADP1752-1.5-EVALZ](#) [ADP1828LC-EVALZ](#) [ADP1870-0.3-EVALZ](#) [ADP1871-0.6-EVALZ](#) [ADP1873-0.6-EVALZ](#) [ADP1874-0.3-EVALZ](#) [ADP1882-1.0-EVALZ](#) [ADP199CB-EVALZ](#) [ADP2102-1.25-EVALZ](#) [ADP2102-1.875EVALZ](#) [ADP2102-1.8-EVALZ](#) [ADP2102-2-EVALZ](#) [ADP2102-3-EVALZ](#) [ADP2102-4-EVALZ](#) [ADP2106-1.8-EVALZ](#) [ADP2147CB-110EVALZ](#) [AS3606-DB](#) [BQ24010EVM](#) [BQ24075TEVM](#) [BQ24155EVM](#) [BQ24157EVM-697](#) [BQ24160EVM-742](#) [BQ24296MEVM-655](#) [BQ25010EVM](#) [BQ3055EVM](#) [NCV891330PD50GEVB](#) [ISLUSBI2CKIT1Z](#) [LM2744EVAL](#) [LM2854EVAL](#) [LM3658SD-AEV/NOPB](#) [LM3658SDEV/NOPB](#) [LM3691TL-1.8EV/NOPB](#) [LM4510SDEV/NOPB](#) [LM5033SD-EVAL](#) [LP38512TS-1.8EV](#) [EVAL-ADM1186-1MBZ](#)